# RECEIVED CENTRAL FAX CENTER JUN 2 5 2007

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: Google-41 (GP-099-00-US)

Appl. No.: 10/750,451

Applicants/Appellant: Ross KONINGSTEIN et al.

Filed: December 31, 2003

Title: SUGGESTING AND/OR PROVIDING TARGETING CRITERIA FOR

**ADVERTISEMENTS** 

TC/A.U.: 3622

Examiner: Michael Bekerman

Mail Stop Appeal Brief-Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

SIR:

#### APPEAL BRIEF

Further to the Notice of Appeal filed on February 23, 2007, which set a period for response to expire on April 23, 2007, that period being extended two months to expire on June 23, 2007, the Appellant requests that the Board reverse all outstanding grounds of rejection in view of the following.

06/26/2007 TL0111 00000039 501049 10750451 02 FC:1402 500.00 DA

RECEIVED CENTRALFAX CENTER

### I. Real Party In Interest

JUN 2 5 2007

The real party in interest is Google, Inc. An assignment of the above-referenced patent application from the inventors to Google, Inc. was recorded in the Patent Office starting at Frame 0484 of Reel 018197.

### II. Related Appeals and Interference

There are no related appeals or interferences.

#### III. Status of Claims

Claims 1, 2, 5-15, 18-43, 46-56, 59-84 and 86-88 are pending.

Claims 3, 4, 16, 17, 44, 45, 57, 58 and 85 have been canceled.

Claims 1-56, 59-84 and 86-88 are rejected.

Specifically, claims 2-4, 12, 13, 15-17, 25, 26, 28-30, 38, 39, 43-45, 53, 54, 66, 67, 69-71, 79 and 80 stand rejected under 35 U.S.C. § 112, ¶ 2 as being incomplete for omitting essential elements. Claims 12, 13, 25, 26 38, 39, 53, 54, 66, 67, 79 and 80 stand rejected under 35 U.S.C. § 112, ¶ 2 as failing to particularly point out and distinctly claim the subject matter which the applicants regard as their invention. Claims 1, 3-10, 14, 16-23, 27, 29-36, 40-42, 44-51, 55, 59-64, 68, 70-77, 81-84 and 86-88 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0055816 (referred to as "the Paine

publication"). Finally, claims 2, 11-13, 15, 24-26, 28, 37-39, 43, 52-54, 56, 65-67, 69 and 78-80 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Paine publication.

The foregoing rejections of claims 1-56, 59-84 and 86-88 are appealed.

#### IV. Status of Amendments

The after final amendment filed on May 14, 2007 has been entered.

#### V. Summary of the Claimed Subject Matter

Independent claim 1 claims a computer-implemented method for determining one or more ad targeting keywords, the computer-implemented method comprising (a) accepting a category (This is supported, for example, by elements 450 and 460 of Figure 4, 610 of Figure 6, and the description on page 19, lines 15 and 16, and page 21, line 23.), (b) looking up one or more keywords using the accepted category (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 19, lines 15-19 and page 21, lines 24 and 25.), and (c) providing at least some of the keywords as one or more ad targeting keywords (This is supported, for example, by 650 of Figure 6 and the description on page 19, lines 19-21 and page 21, line 30 through page 22, line 1.).

Corresponding independent apparatus claim 42 recites corresponding means for performing the acts of the method of independent claim 1. These means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.)

Independent claim 14 claims a computer-implemented method for determining one or more ad targeting keywords, the computer-implemented method comprising (a) accepting a category (This is supported, for example, by elements 450 and 460 of Figure 4, 610 of Figure 6, and the description on page 19, lines 15 and 16, and page 21, line 23.), (b) looking up one or more keywords using the accepted category (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 19, lines 15-19 and page 21, lines 24 and 25.), (c) providing at least some of the keywords as suggested targeting keywords to an advertiser (This is supported, for example, by 650 of Figure 6 and the description on page 19, lines 19-21 and page 21, line 30 through page 22, line 1.), (d) accepting advertiser input in response to the suggested targeting keywords (This is supported, for example, by 740 of Figure 7 and the description on page 22, lines 15-18.), and (e) determining whether or not to provide at least some of the keywords as targeting keywords for an ad using the accepted advertiser input (This is supported, for example, by 750 of Figure 7 and the description at page 22, lines 21-23.).

Corresponding independent apparatus claim 55 recites corresponding means for performing the acts of the method

of independent claim 1. These means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.)

Independent claim 27 claims a computer-implemented method for generating one or more serving constraints for targeting an ad, the computer-implemented method comprising (a) accepting ad information, (b) determining a category using the accepted ad information (These two acts are supported, for example, by 410 and 420 of Figure 4, and the description on page 18, line 20 through page 19, line 13.), and (c) looking up one or more serving constraints using the category determined (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 14, lines 3-14, page 19, lines 15-19, page 21, lines 24 and 25 and page 26, lines 16-20.).

Corresponding independent apparatus claim 68 recites corresponding means for performing the acts of the method of independent claim 1. These means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.)

Independent claim 84 claims a computer-implemented method comprising (a) accepting ad information, (b) determining one or more categories using the accepted ad information (These two acts are supported, for example, by 410 and 420 of Figure 4, and the description on page 18, line 20 through page 19, line 13.), (c) recommending at least one of the one or more categories determined to an advertiser, and (d) accepting advertiser feedback

with respect to the recommended one or more categories (These two acts are supported, for example, by element 720 of Figure 7, and the description on page 18, line 27 through page 19, line 1, and page 22, lines 11-15.), wherein each of the one or more categories is specifically associated with one or more keywords (This is supported, for example, by elements 350, including 352 and 354, of Figure 3 and the description on page 19, lines 17-19.).

Separately argued dependent claim 70 further defines a means-plus-function element and recites that the ad includes ad creative information for rendering the ad and an address of a landing Webpage linked from the ad, and that the means for determining at least one category use the ad creative information. This is supported, for example, by page 19, lines 1-11 and page 25, lines 9-26. The means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.

Separately argued dependent claim 71 further defines a means-plus-function element and recites that the ad includes ad creative information for rendering the ad and an address of a landing Webpage linked from the ad, and that the means for determining at least one category use information from a landing Webpage. This is supported, for example, by page 19, lines 1-11 and page 25, lines 9-26. The means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.

Separately argued dependent claim 46 (and 59 and 72) further defines a mean-plus function element and recites that the means for looking up keywords use an index in which each of a plurality of categories is provided as a lookup key to one or more keywords. This is supported, for example, by Figure 4 and page 19, lines 17-19. The means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.

Separately argued dependent claims 48-51 (and 61-64, and 74-77) further define a means-plus-function element and recite that the means for performing qualification testing of the keywords track a performance of ads served using the keyword as an ad targeting keyword. This is supported, for example, by element 480 of Figure 4, Figure 8, and especially 830 of Figure 8, as well as page 19, lines 21 and 22, page 20, line 16 through page 21, line 17, and page 22, line 25 through page 23, line 20. The means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.

Separately argued dependent claim 43 (and 56 and 69) recites no means-plus-function elements, but depends from a claim including such elements. Specifically, claim 43 further recites that at least one of the one or more ad targeting keywords (looked up by the means for looking up...) is a negative keyword for an ad, which negative keyword is used to make the ad ineligible to be served for requests including the negative keyword. This is supported, for example, by page 15, lines 9-13 and page 23, lines 30 and 31. The means are described, for

example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.

Separately argued dependent claim 52 (and 65, 69 and 78) recites that the ads served using the keyword as an ad targeting keyword by the means for performing qualification testing of the keywords, are only served on available ad spots that otherwise would be unused by any ads. This is supported, for example, by page 19, line 23 through page 20, line 15. The means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.

Finally, separately argued dependent claim 53 (and 54, 66, 67, 79 and 80) recites that the means for providing at least some of the keywords as one or more ad targeting keywords provide the keywords in an order determined using unused inventory information about available ad spots that otherwise would be unused by any ads. This is supported, for example, by page 19, line 23 through page 20, line 15 (especially page 19, lines 27-30. The means are described, for example, by Figure 9 and the description on page 24, line 3 through page 25, line 6.

#### VI. Grounds of Rejection to be Reviewed on Appeal

The issues presented for review are whether:

(1) (separately patentable and argued groups of) claims

2, 12, 13, 15, 25, 26, 28-30, 38, 39, 43, 53, 54, 66, 67,

69-71, 79 and 80 comply with 35 U.S.C. § 112, ¶ 2;

- (2) (separately patentable and argued groups of) claims 1, 5-10, 14, 18-23, 27, 29-36, 40-42, 46-51, 55, 59-64, 68, 70-77, 81-84 and 86-88 are anticipated by the Paine publication; and
- (3) (separately patentable and argued groups of) claims 2, 11-13, 15, 24-26, 28, 37-39, 43, 52-54, 56, 65-67, 69 and 78-80 are unpatentable over the Paine publication.

#### VII. Argument

The Appellant respectfully requests that the Board reverse the final rejection of claims 1-56 and 59-84 in view of the following.

#### Rejections under 35 U.S.C. § 112

Claims 2-4, 12, 13, 15-17, 25, 26, 28-30, 38, 39, 43-45, 53, 54, 66, 67, 69-71, 79 and 80 stand rejected under 35 U.S.C. § 112, ¶ 2 as being incomplete for omitting essential elements. The appellant respectfully requests that the Board reverse this ground of rejection in view of the following.

First, since claims 3, 4, 16, 17, 44 and 45 have been canceled in the entered after-final amendment filed on May 14, 2007, this ground of rejection is rendered moot with respect to these claims.

The Examiner cites MPEP § 2172.01. MPEP § 2172.01 states, in pertinent part:

A claim which omits matter disclosed to be essential to the

invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. In re Mayhew, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See also MPEP § 2164.08(c). Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant(s) as necessary to practice the invention. [Emphasis added.]

The appellant will refer to this test in addressing the Examiners rejection.

Regarding claims 2, 15, 28-30, 43, 56 and 69-71, the Examiner contends that there appears to be a missing step of targeting or serving advertisements. (See Paper No. 20061008, page 2.) However, neither targeting, nor serving, are essential steps. As the specification states:

The present invention may involve novel methods, apparatus, message formats and/or data structures for suggesting and/or providing keywords used to target ads (referred to as "targeting keywords"). [Emphasis added.]

Page 8, lines 10-12. This can be done before a advertisement is ever served. For example, the specification further states:

For advertisers with new campaigns, the advertiser can enter ad information, such as a creative for example. The keyword facility may use this entered information as seed information to infer one or more categories. It may then request that the advertiser confirm or deny some basic feedback

information (e.g., categories, Webpage information, etc.). For example, an advertiser may be provided with candidate categories and may be asked to confirm (e.g., using checkboxes) which of the categories are relevant to their ad. In one embodiment, the ad server system may then automatically provide keywords to the advertiser for its ad. [Emphasis added.]

Page 6, lines 13-21. Moreover, the independent claims from which these claims depend, determine targeting keywords (or serving constraints) which may be provided, perhaps subject to advertiser approval or qualification testing.

In any event, since the appellant has described that the keywords or serving constraints may be provided to an advertiser when they are setting up a new ad campaign, acts of targeting ads or serving ads are clearly not described as being essential to the practice of the invention by the appellant. Therefore, the appellant respectfully requests that the Board reverse this ground of rejection.

Regarding claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80, the Examiner contends that it is unclear how "unused inventory" and "unused ad spots" are determined, and recommended language reciting how such a determination might be made. Although these claims were amended to clarify what is meant by an "unused ad spot," the appellant declined to amend the claims as proposed by the Examiner because the claims do not require "determining" unused ad spots or unused inventory. As one example, such information might already be available

and simply accepted. For example, the specification states:

In one embodiment of the present invention, the keyword suggestion/provision operations 460 may use unused inventory information 455 in its determination of keywords. For example, such unused inventory information 455 may associate keywords with a number of unused ad spots over a period of time. Generated targeting keywords 465 may be ordered based on number of unused ad spots associated with the keywords. In this way, keywords that, if used as targeting keywords, would fill many otherwise unused ad spots may be preferred over those that would fill few otherwise [Emphasis added.] unused ad spots.

Page 19, lines 23-30. Thus, some embodiments might use unused inventory information. Although the specification does describe how such unused inventory information might be determined (See, e.g., page 20, lines 1-15.), the appellant never indicated that such a determination is necessary or essential.

Since the appellant has demonstrated that determining unused ad spots or unused inventory is not an essential or necessary act of the invention, the appellant respectfully requests that the Board reverse this ground of rejection.

#### Rejections under 35 U.S.C. § 102

Claims 1, 3-10, 14, 16-23, 27, 29-36, 40-42, 44-51, 55, 59-64, 68, 70-77 and 81-84 stand rejected under 35

U.S.C. § 102(e) as being anticipated by the Paine publication. The appellant respectfully requests that the Board withdraw this ground of rejection in view of the following.

First, since claims 3, 4, 16, 17, 44 and 45 have been canceled in the entered after-final amendment filed on May 14, 2007, this ground of rejection is rendered moot with respect to these claims.

Various patentable features of the claimed invention will be described below with respect to separate groups of claims. The Paine publication provides a tool for finding good search terms for an advertiser's Website while getting rid of the bad ones (See, e.g., paragraph 0012.), while the present invention concerns determining one or more keywords (or some other serving constraints which may be used for ad targeting). However, there are significant, and patentable, differences between the Paine publication and the claimed invention.

#### The Paine Publication

The Paine publication makes search term recommendations by (i) looking for good search terms directly on an advertiser's Website (referred to as "spidering"), and/or (ii) comparing an advertiser to other, similar, advertisers and recommending the search terms those other advertisers have chosen (referred to as "collaborative filtering"). In at least one embodiment, the output of the spidering step is used as input to the collaborative filtering step. (See, e.g., paragraph 0013.) These techniques are discussed with reference to Figures 10-20 of the Paine publication.

#### Spidering in the Paine Publication

Spidering is a known technology for downloading a Website rooted at a uniform resource locator (URL). Specifically, a home page of the Website specified by the URL is downloaded and scanned for hyperlinks to other pages, which are similarly downloaded and scanned until the program reaches a predefined link depth, downloads a predetermined number of pages, or reaches some other stopping criterion. (See, e.g., paragraph 0096.)

Search terms may be determined from this spidering. The search terms may be scored using two factors -- (i) how common a search term is on the World Wide Web, and (ii) how often users search for it. The search terms may then be sorted by either the score quality or by the number of times they have occurred in the downloaded pages. (See, e.g., paragraph 0097.)

As can be appreciated from the foregoing, determining search term recommendations from spidering simply uses terms found in the advertiser's Website, but not "categories". In his "Response to Arguments", the Examiner indicated that he considers a "search term" to be a "category". (See Paper No. 02072006, page 6.)

#### Collaborative Filtering in the Paine Publication

Generally, collaborative filtering is used to make recommendations based on user similarity. In the case of the Paine publication, collaborative filtering is used to make recommendations based on advertiser similarity in terms of search terms that they have used for their ads.

More specifically, the Paine publication computes the Pearson correlation between a new advertiser and all of the existing advertisers using a numeric rating (e.g., 0 to 5) assigned to each entry in an advertiser/term table. An existing advertiser might get a rating of 5 for every term that it has bid on and a rating of UNKNOWN for every other term. The new advertiser (to which recommendations are to be made) might get a rating of 5 for terms it has accepted, a 1 for terms that it has rejected, and a 2 for every other term. (See, e.g., paragraph 0102.)

Once the collaborative filter has computed the correlation between the new advertiser and the existing advertisers (that is, how similar the new advertiser is to various existing advertisers), the collaborative filter predicts how likely it is that each term is a good search term for the new advertiser. (See, e.g., paragraph 0104.)

As can be appreciated from the foregoing, determining search term recommendations from search terms used by other advertisers using collaborative filtering does not use "categories." In his "Response to Arguments", the Examiner indicated that he considers a "search term" to be a "category". (See Paper No. 20061008, page 7.)

# Combining Spidering and Collaborative Filtering in the Paine Publication

Spidering and collaborative filtering may be used in combination. For example, spidering may provide recommended search terms which a new advertiser may accept or reject. Given such an initial list of accepted and rejected search terms (which may have ratings based

on whether or not the terms were accepted or rejected), collaborative filtering may be used to provide an updated list of search terms which may be accepted or rejected by the new advertiser. Collaborative filtering may be run repeatedly based on the latest list of accepted or rejected search terms until the user is satisfied. (See, e.g., paragraphs 0107-0112 and Figure 10.)

As can be appreciated from the foregoing, determining search term recommendations using a combination of spidering and collaborative filtering does not use "categories." To reiterate, in his "Response to Arguments", the Examiner indicated that he considers a "search term" to be a "category". (See Paper No. 20061008, page 7.)

#### The Examiner's Interpretation of the Paine Patent

The Examiner is apparently interpreting (1) accepting at least one category as reading on accepting the "spidering" results in the Paine publication, and (2) determining one or more keywords from using the accepted at least one category as reading on using the "spidering" results to get "collaborative filtering" results in the Paine publication. To reach this conclusion, the Examiner is interpreting "category" to include keywords. However, in exemplary embodiments consistent with the present invention, each of a number of categories is associated with one or more keywords. Consequently, a category can be used to lookup one or more keywords. As one example, Figure 3 of the present application includes an index 350 in which a category can 352 can be used as a key to obtain associated keywords 354.

The appellant continues to disagree with the Examiner's interpretation of "category". The ordinary meaning of category is a defined class in a classification system. In the context of the Internet and e-commerce, those skilled in the art appreciate that categories typically pertain to product and service categories. For example, the Website Amazon.com includes product categories including Books, Music, DVD, VHS, Magazines & Newspapers, Computer & Video Games, Software, Electronics, Audio & Video, Camera & Photo, Cell Phones & Service, Computers, Office Products, Musical Instruments, Home & Garden, Automotive, Bed & Bath, Furniture & Décor, Gourmet Food, Kitchen & Housewares, Outdoor Living, Pet Supplies, Tools & Hardware, Apparel & Accessories, Shoes, Jewelry & Watches, Beauty, Health & Personal Care, Sports & Outdoors, Toys & Games and Baby.

The use of the term "category" in the specification is consistent with the ordinary meaning of category and its meaning in the context of e-commerce. For example, in the illustrative example provided in § 4.3 of the specification, it is described that:

Category determinations operations 410 may determine various, possibly relevant, categories (and possibly sub-categories) such as:

automobiles ...

computers ... operating systems ...

music ... popular music ...

music ... musical instruments ...

animals ... mammals ... felines ...

movies ... foreign films ...

travel ... resorts ...

sports & recreation ... snorkeling ... scuba ...

sports & recreation ... football ...

pets ... fish

Page 25, lines 13-26. Embodiments consistent with the present invention use associations between categories and keywords to suggest appropriate keywords. Using categories allows the suggestion of irrelevant keywords (that might occur due to the fact that some words, like "Jaguar" for example, can have multiple meanings), to be avoided.

On the other hand, although the Paine publication also recommends or suggests search terms used when serving ads, it does <u>not</u> use *categories* as claimed.

Rather, it uses spidering (which uses keywords found on a Website -- <u>not</u> categories) and/or collaborative filtering (which uses keywords from other advertisers considered to be similar to the new advertiser, <u>not</u> categories, based on their use of common keywords) as described above.

The Examiner uses the fact that "automobile" is used as an example of a search term in the Paine publication and a category in the present application in an attempt to prove that search terms and keywords are the same as categories. However, the fact that a particular term might be used as a label representing a category does not mean that the same term, when used as a search term, represents a category. Thus, the appellant respectfully submits that the rejection rests on an improper interpretation of "category" -- one that violates Phillips v. AWH Corp., 75 U.S.P.Q.2d 1321 (Fed. Cir. July 12, 2005) (en banc) (referred to as "Phillips v. AWH" below). That is, when interpreting the term "category," the Examiner improperly ignores the specification as it would be interpreted by one of ordinary skill in the art.

In <u>Phillips v. AWH</u>, the Court of Appeals for the Federal Circuit ("the CAFC") stated:

the specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term."

Id., at 1327, quoting from Vitronics Corp. v.
Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

#### Patentable Features of the Claimed Invention

Having introduced the Paine publication, various patentable features of the claimed invention are discussed.

#### Group I: Claims 1, 14, 42 and 55

Independent claims 1, 14, 42, and 55 are not anticipated by the Paine publication because the Paine publication does not teach an act of (or means for)

looking up one or more keywords using a category. Even assuming, arguendo, that "category" reads on the keywords returned by spidering in the Paine publication as alleged by the Examiner, these alleged categories are not used to "look up" keywords. To reiterate, the Paine publication computes the Pearson correlation between a new advertiser and all of the existing advertisers using a numeric rating (e.g., 0 to 5) assigned to each entry in an advertiser/term (apparently, the Examiner interprets "term" as being read on by "category") table. An

existing advertiser might get a rating of 5 for every term that it has bid on and a rating of UNKNOWN for every other term. The new advertiser (to which recommendations are to be made) might get a rating of 5 for terms it has accepted, a 1 for terms that it has rejected, and a 2 for every other term. (See, e.g., paragraph 0102.) Once the collaborative filter has computed the correlation between the new advertiser and the existing advertisers (that is, how similar the new advertiser is to various existing advertisers), the collaborative filter predicts how likely it is that each term is a good search term for the new advertiser. (See, e.g., paragraph 0104.) This collaborative filtering process to get terms (alleged to be keywords) used by other advertisers from existing terms (alleged to be categories) is not using a category to lookup one or more keywords. Accordingly, independent claims 1, 14, 42, and 55 are not anticipated by the Paine publication for at least this reason.

#### Group II: Claims 86-99

First, since claims 86 and 87 depend from claims 1 and 14, respectively, they are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims of Group I. Second, since claim 88 depends from claim 27, it is not anticipated by the Paine publication for at least the reasons discussed below with reference to Group VII.

Further, claims 86-88 recite a relationship between categories and keywords (or serving constraints) which would enable a lookup such as that discussed above with reference to the claims of Group I. Specifically, these

claims recite that each of the one or more categories is specifically associated with one or more keywords (or serving constraints). The use of collaborative filtering in the Paine publication to get terms (alleged to be keywords) used by other advertisers from existing terms (alleged to be categories) does not specifically associate the existing terms with the terms used by other advertisers. Therefore, claims 86-88 are not anticipated by the Paine publication for at least this additional reason.

#### Group III: Claims 29, 30, 70 and 71

First, since each of these claims depends from a claim of Group I, these claims are not anticipated by the Paine publication for at least the reasons discussed above with reference to Group I.

Further, in rejecting dependent claims 29, 30, 70 and 71, the Examiner considered an advertiser Website as discussed in the Paine publication to contain ad creative information. (See Paper No. 20061008, page 4.) Although an advertiser Website might be linked to an ad, these claims recite that the ad includes ad creative information for rendering the ad and an address of a landing Webpage linked from the ad. This distinguishes the ad (and ad creative information) from an advertiser Website. Accordingly, these claims are not anticipated by the Paine publication for at least this additional reason.

#### Group IV: Claims 5, 18, 31, 46, 59 and 72

First, since each of these claims depends from a claim belonging to Group I, they are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims of Group I.

Further, in rejecting dependent claims 5, 18, 31, 46, 59 and 72, the Examiner considered subaccounts as used in paragraph [0080] of the Payne publication to be different categories. (See Paper No. 20061008, page 4.) The appellant strongly disagrees. First, Figure 9 and its corresponding description in paragraph [0080] merely concern the known notion of campaign number subaccounts. (Indeed, the main description of Paine's invention on which the presently claimed invention is alleged to read begins at paragraph [0093].)

"category" inconsistently to mean both "terms" and advertiser "subaccounts". The Court of Appeals for the Federal Circuit ("the CAFC") has instructed that to anticipate, a single prior art reference must "describe all of the elements of the claims, arranged as in the [claim]." (Emphasis added.) C.R. Bard Inc. v. M3

Systems, Inc., 48 U.S.P.Q.2d 1225, 1230 (Fed. Cir. 1998), cert. denied, 119 S. Ct. 1804 (1999). This is in accord with previous Court of Claims and Patent Appeals ("the CCPA") decisions. For example, the CCPA has instructed that to anticipate:

[the] reference must clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [claimed invention] without any need for picking, choosing and combining various

disclosures not directly related to each other by the teachings of the cited reference. [Emphasis added.]

In re Arkley, 172 U.S.P.Q. 524, 526 (CCPA 1972). This inconsistent interpretation of "category" to mean both "terms" and advertiser "subaccounts" in the Paine publication (both of which interpretations are improper, as demonstrated by the appellant) shows that the Paine publication does not describe all of the elements of the claims, arranged as in the claim.

The Examiner contends that (1) each "subaccount" identifies different keywords, and (2) keywords are categories, and therefore (3) subaccounts are categories. (Paper No. 20061008, page 9.) The Examiner's logic is flawed. Using the Examiner's logic, if a "shopping list" identifies different "groceries", one of which (e.g., "wine") might also be a category label, then a "shopping list" is "wine". As the foregoing simple example demonstrates, the logic upon which the Examiner's rejection rests is fatally flawed.

Accordingly, dependent claims 5, 18, 31, 46, 59 and 72 are not anticipated by the Paine publication for at least this additional reason.

### Group V: Claims 6, 19, 32, 47, 60 and 73

First, since each of these claims depends from a claim belonging to Group I, they are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims of Group I.

Further, in rejecting claims 6, 19, 32, 47, 60 and 73, the Examiner contends that the third sentence of the

Abstract of the Paine publication teaches performing qualification testing of one or more keywords to determine if a keyword is qualified or unqualified for use as an ad targeting keyword, and providing qualified keywords as ad targeting keywords. (See Paper No. 20061008, page 5.) The appellant respectfully disagrees.

The cited portion of the Paine publication merely introduces the collaborative filtering technique of "comparing an advertiser to other, similar advertisers and recommending the search terms the other advertisers have chosen." (Abstract) Frankly, the appellant cannot fathom how this can be construed as the claimed "qualification testing" to see if a keyword is qualified or unqualified for use as an ad targeting keyword. The specification of the present application provides an example of such qualification testing, stating:

Figure 8 is a flow diagram of an exemplary method 800 that may be used to try keywords for qualification as targeting keywords in a manner consistent with the present invention. A keyword (or more than one keyword) is accepted. (Block 810). The trial operations may use one or more keywords as targeting keywords in the serving of an ad (or even a group of ads) (Block 820) and the performance of such ads may be tracked (Block 830). embodiment of the present invention, the serving of the ads using trial targeting keyword (s) may be limited to ad spots (inventory) that otherwise would be unused. After a certain amount of time and/or after a certain number of such ad serves, various branches of the method 800 may be performed responsive to various different performance levels. If a

keyword performs well (e.g., in general, or for a particular category), it may be marked as a keyword to be suggested, and/or as a qualified keyword (e.g., in general, or for the particular category) (Block 850) before the method 800 is left (Node 870). fact, generic creatives (for example, creative templates with certain advertiser information inserted) with qualified targeting keywords could be subject to expedited approvals. on the other hand, a keyword does not perform well (e.g., in general, or for a particular category), it may be disqualified and marked as unusable (e.g., in general, or for the particular category) (Block 860) before the method 800 is left (Node 870). this way, advertisers can avoid the frustration of targeting their ads using poorly performing keywords. Although not shown, keywords can be assigned various different status levels associated with various different levels or performance. one embodiment, performance for one or more keywords may be considered to be good if ads served pursuant to using the keyword(s) as targeting keywords perform (e.g., have a click-through rate) comparable to what salespeople and/or customers already think are the best keywords (e.g., the keywords that they are already using).

Page 22, line 25 through page 23, line 20. As this example demonstrates, the Examiner's interpretation of "qualification testing" is inconsistent with how one skilled in the art would interpret this term, in light of the specification.

Thus, claims 6, 19, 32, 47, 60 and 73 are not anticipated by the Paine publication for at least this additional reason.

# Group VI: Claims 7-10, 20-23, 33-36, 48-51, 61-64 and 74-77

First, since each of these claims depends from a claim belonging to Group V, they are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims of Group V (and therefore of Group I).

Further, in rejecting claims 7-10, 20-23, 33-36, 48-51, 61-64 and 74-77, the Examiner simply alleges that the performance of ads serve using targeting keywords is tracked, citing paragraph [0087] of the Paine publication. (See Paper No. 20061008, page 5.) However, merely tracking performance does not teach using such performance for purposes of performing qualification testing of keywords. Accordingly, these claims are not anticipated by the Paine publication for at least this additional reason.

#### Group VII: Claims 27, 40, 41, 68, and 81-84

Independent claims 27 and 68 recite an act of (or means for) determining a category using accepted ad information, and looking up one or more serving constraints using the category determined. In rejecting these claims, the Examiner contends that since the Paine publication teaches collaborative filtering, "[b]y comparing an advertiser to other similar advertisers..., the system would have to determine the initial

## JUN 2 5 2007

advertiser's product category." Paper No. 20061008, page 5. The appellant respectfully disagrees.

In the Paine publication, advertiser similarity of two advertisers is a function of terms used by the advertisers and the advertisers' ratings of those terms. (See, e.g., paragraphs [0099] through [0106] of the Paine publication.) More specifically, the Paine publication computes a Pearson correlation for use as a measure of similarity. (See, e.g., paragraphs [0102] and [0103] of the Paine publication.) This has nothing to do with determining an initial advertiser's product category as alleged by the Examiner.

Thus, claims 27, 40, 41, 68 and 81-84 are not anticipated by the Paine publication for at least this additional reason.

### Rejections under 35 U.S.C. 5 103

Claims 2, 11-13, 15, 24-26, 28, 37-39, 43, 52-54, 56, 65-67, 69 and 78-80 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Paine publication. The appellant respectfully requests that the Board reverse this ground of rejection in view of the following.

#### Group VIII: Claims 2, 15, 28, 43, 56 and 69

In rejecting claims 2, 15, 28, 43, 56 and 69, the Examiner contends that the Paine publication uses a list of good words for an advertisers Website and a list of negative keywords that have no relation to the advertiser's Website, and concludes that it would have

been obvious to one skilled in the art to include negative keywords because doing so would allow more accuracy in relation to relevant keywords. (See Paper No. 20061008, page 6.)

First, the modification of the Paine publication proposed by the Examiner would not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 27, 42, 55 and 68 (from which claims 2, 15, 28, 43, 56 and 69, respectively, directly or indirectly depend) discussed above. Therefore, these claims are not rendered obvious by the Paine publication for at least this reason.

Second, one skilled in the art would not have been motivated to modify the Paine publication as proposed by the Examiner. Specifically, the positive and negative scores assigned to keywords is used in the context of collaborative filtering for determining whether a new advertiser is similar to an existing advertiser. This has nothing to do with the use of negative keywords for controlling the serving of ads. Further, in addition to the fact that the Examiner provides no suggestion in the art for the proposed modification, the appellant notes that the use of negative scores in the Paine publication is not relevant to negative keywords in the present claims. Consequently, claims 2, 15, 28, 43, 56 and 69 are not rendered obvious by the Paine patent for at least this additional reason.

#### Group IX: Claims 11, 24, 37, 52, 65 and 78

Regarding claims 11, 24, 37, 52, 65, 69 and 78, the Examiner concedes that the Paine publication does not

discuss the type of ad space that will be used for the ad on a search site. To compensate for this admitted deficiency of the Paine publication, the Examiner argues that it is well-known that when a new ad is added to a search page, it will be added to an ad spot that would have otherwise been unused, and concludes that it would have been obvious to one skilled in the art to specify that the advertisement is to be served on a portion of a Webpage that would otherwise been unused, because this would keep the operator of the search site from overlapping other information with an ad. (Paper No. 20061008, page 6.)

First, even assuming, arguendo, that one skilled in the art would have been motivated to modify the Paine publication as proposed by the Examiner, since the proposed modification of the Paine publication would not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 27, 42, 55 and 68 (from which claims 11, 24, 37, 52, 65 and 78, respectively, indirectly depend) discussed above, these claims are not rendered obvious by the Paine publication for at least this reason.

Second, the invention recited in these claims concerns qualification testing of keyword (or serving constraint) recommendations. (See, e.g., Figure 8 of the present application.) As stated, "In one embodiment of the present invention, the serving of the ads using trial targeting keyword (s) may be limited to ad spots (inventory) that otherwise would be unused." Page 22, line 30 through page 23, line 1. In this way, testing of keyword recommendations has a minimal impact on the system.

As used in the art, the term "ad spot" means a portion of a document, such as a Web page, available to show ads -- it does not mean any spot on a document. As described in the specification:

Suppose that the Web page has ten (10) ad spots and ten (10) ads are served. In this case, there are no unused ad spots, and the information 560 need not be updated. If, however, the Web page has ten (10) ad spots and only three (3) ads are served, there are seven (7) unused ad spots.

Page 20, lines 4-8.

advertisement is added to a search page, it will be added to an ad spot that would otherwise be unused is false.

Often times there are a great number of eligible ads competing to be placed on an ad spot. If an ad (ad A) is served, it is very often the case that another ad (ad B) losses out to ad A, and ad B would otherwise have been served if not for ad A. (Indeed, this is the reason why advertisers submit bids for ad spots. If the ad spots were necessarily otherwise unused, advertiser could bid nothing or a nominal amount and guaranteed to be served.)

Attempting to rebut the fact established by the appellant, the Examiner contends that "a web page developer would not put 2 advertisements on top of one another in the interest of both items being viewable."

(Paper No. 20061008, page 9.) However, the Examiner's position ignores the fact, understood by those skilled in the art, that an advertisement can "displace" another

advertisement from an ad spot. Thus, the claims reflect a preference to serve the advertisements in instances where there would be empty ad spots over instances where an other advertisement would be displaced.

Thus, claims 11, 24, 37, 52, 65, 69 and 78 are not rendered obvious by the Paine publication for at least this additional reason.

# Group X: Claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80

In rejecting claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80, the Examiner concedes that the Paine publication does not teach ordering ads based on an amount left in unused inventory. To compensate for this admitted deficiency, the Examiner argues that it would have been obvious to one of ordinary skill in the art that the Webpage owner would want to recommend keywords to a paying advertiser for which there were more spots available to ensure that less ad spots would be unpaid for. (See Paper No. 20061008, page 6.)

First, even assuming, arguendo, that one skilled in the art would have been motivated to modify the Paine publication as proposed by the Examiner, the proposed modification of the Paine publication would not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 27, 42, 55 and 68 (from which claims 11, 24, 37, 52, 65 and 78, respectively, indirectly depend) discussed above, these claims are not rendered obvious by the Paine publication for at least this reason.

Second, these claims pertain to qualification testing of targeting keywords. Therefore, these claims are not rendered obvious by the Paine publication, as discussed above, for at least this additional reason.

Third, by ordering keywords based on number of unused ad spots associated with the keywords these claims provide advantages not even contemplated by the Paine publication. For example, "keywords that, if used as targeting keywords, would fill many otherwise unused ad spots may be preferred over those that would fill few otherwise unused ad spots." Page 19, lines 28-30 "In this way, keywords that, if used as targeting keywords, would fill more ad spots may be considered first." Page 21, lines 27 and 28.

#### XIII. Claims appendix

An appendix containing a copy of the claims on appeal is filed herewith.

#### IX. Evidence appendix

There is no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132, nor is there any other evidence entered by the Examiner and relied upon by the appellant in the appeal.

### x. Related proceedings appendix

There are no decisions rendered by a court of the Board in any proceeding identified in section II above pursuant to 37 C.F.R. § 41.38 (c) (1) (ii).

#### Conclusion

In view of the foregoing, the Appellant respectfully submits that the pending claims are in condition for allowance. Accordingly, the Appellant requests that the Board reverse each of the outstanding grounds of rejection.

Respectfully submitted,

June 25, 2007

John C. Pokotylo, Attorney

Reg. No. 36,242 Customer No. 26479 (732) 542-9070

#### CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper (and any accompanying paper(s)) is being facsimile transmitted to the United States Patent Office on the date shown below.

John C. Pokotylo

Type or print name of person signing certification

Signature

June 25, 2007

Date

# RECEIVED CENTRAL FAX CENTER JUN 2 5 2007

# CLAIMS APPENDIX PURSUANT TO 37 C.F.R. § 41.37 (c) (1) (viii)

- l Claim 1 (previously presented): A computer-implemented
- 2 method for determining one or more ad targeting keywords,
- 3 the computer-implemented method comprising:
- 4 a) accepting a category;
- 5 b) looking up one or more keywords using the accepted
- 6 category; and
- 7 c) providing at least some of the keywords as one or
- 8 more ad targeting keywords.
- l Claim 2 (previously presented): The computer-implemented
- 2 method of claim 1 wherein at least one of the one or more
- 3 ad targeting keywords is a negative keyword for an ad,
- 4 which negative keyword is used to make the ad ineligible to
- 5 be served for requests including the negative keyword.

#### Claims 3 and 4 (canceled)

- 1 Claim 5 (previously presented): The computer-implemented
- 2 method of claim 1 wherein the act of looking up keywords
- 3 uses an index in which each of a plurality of categories is
- 4 provided as a lookup key to one or more keywords.
- 1 Claim 6 (previously presented): The computer-implemented
- 2 method of claim 1 further comprising:
- 3 performing qualification testing of the keywords to
- 4 determine if a keyword is qualified or unqualified for
- 5 use as an ad targeting keyword,

- 6 wherein each of the at least some of the keywords
- 7 provided as one or more ad targeting keywords are qualified
- 8 keywords.
- 1 Claim 7 (previously presented): The computer-implemented
- 2 method of claim 6 wherein the act of performing
- 3 qualification testing of the keyword tracks a performance
- 4 of ads served using the keyword as an ad targeting keyword.
- 1 Claim 8 (previously presented): The computer-implemented
- 2 method of claim 7 wherein the performance of ads is tracked
- 3 in general, across all categories.
- 1 Claim 9 (previously presented): The computer-implemented
- 2 method of claim 7 wherein the performance of ads is tracked
- 3 across one or more specific categories.
- I Claim 10 (previously presented): The computer-implemented
- 2 method of claim 9 wherein the one or more specific
- 3 categories include the category accepted.
- 1 Claim 11 (previously presented): The computer-implemented
- 2 method of claim 7 wherein the ads served using the keyword
- 3 as an ad targeting keyword during the act of performing
- 4 qualification testing of the keywords, are only served on
- 5 available ad spots that otherwise would be unused by any
- 6 ads.
- 1 Claim 12 (previously presented): The computer-implemented
- 2 method of claim 1 wherein the act of providing at least
- 3 some of the keywords as one or more ad targeting keywords
- 4 provides the keywords in an order determined using unused

- 5 inventory information about available ad spots that
- 6 otherwise would be unused by any ads.
- 1 Claim 13 (previously presented): The computer-implemented
- 2 method of claim 1 wherein the act of providing at least
- 3 some of the keywords as one or more ad targeting keywords
- 4 provides the keywords in an order determined using unused
- 5 inventory information such that a keyword corresponding to
- 6 a larger number of ad spots that otherwise would be unused
- 7 by other ads is provided before another keyword
- 8 corresponding to a smaller number of ad spots that
- 9 otherwise would be unused by other ads.
- 1 Claim 14 (previously presented): A computer-implemented
- 2 method for determining one or more ad targeting keywords,
- 3 the computer-implemented method comprising:
- 4 a) accepting a category;
- 5 b) looking up one or more keywords using the accepted
- 6 category;
- 7 c) providing the keywords as suggested targeting
- 8 keywords to an advertiser;
- d) accepting advertiser input in response to the
- 10 suggested targeting keywords; and
- e) determining whether or not to provide at least
- some of the keywords as targeting keywords for an ad
- using the accepted advertiser input.
  - 1 Claim 15 (previously presented): The computer-implemented
- 2 method of claim 14 wherein at least one of the one or more
- 3 ad targeting keywords is a negative keyword for an ad,
- 4 which negative keyword is used to make the ad ineligible to
- 5 be served for requests including the negative keyword.

#### Claims 16 and 17 (canceled)

- 1 Claim 18 (previously presented): The computer-implemented
- 2 method of claim 14 wherein the act of looking up keywords
- 3 uses an index in which each of a plurality of categories is
- 4 provided as a lookup key to one or more keywords.
- l Claim 19 (previously presented): The computer-implemented
- 2 method of claim 14 further comprising:
- 3 performing qualification testing of the keywords to
- 4 determine if a keyword is qualified or unqualified for
- 5 use as an ad targeting keyword,
- 6 wherein each of the at least some of the keywords
- 7 provided as one or more ad targeting keywords are qualified
- 8 keywords.
- I Claim 20 (previously presented): The computer-implemented
- 2 method of claim 19 wherein the act of performing
- 3 qualification testing of the keyword tracks a performance
- 4 of ads served using the keyword as an ad targeting keyword.
- 1 Claim 21 (previously presented): The computer-implemented
- 2 method of claim 20 wherein the performance of ads is
- 3 tracked in general, across all categories.
- 1 Claim 22 (previously presented): The computer-implemented
- 2 method of claim 21 wherein the one or more specific
- 3 categories include the category accepted.

- 1 Claim 23 (previously presented): The computer-implemented
- 2 method of claim 20 wherein the performance of ads is
- 3 tracked across one or more specific categories.
- 1 Claim 24 (previously presented): The computer-implemented
- 2 method of claim 20 wherein the ads served using the keyword
- 3 as an ad targeting keyword during the act of performing
- 4 qualification testing of the keywords, are only served on
- 5 available ad spots that otherwise would be unused by any
- 6 ads.
- 1 Claim 25 (previously presented): The computer-implemented
- 2 method of claim 14 wherein the act of providing the
- 3 keywords as suggested targeting keywords to an advertiser
- 4 provides the keywords in an order determined using unused
- 5 inventory information about available ad spots that
- 6 otherwise would be unused by any ads.
- 1 Claim 26 (previously presented): The computer-implemented
- 2 method of claim 14 wherein the act of providing the
- 3 keywords as suggested targeting keywords to an advertiser
- 4 provides the keywords in an order determined using unused
- 5 inventory information such that a keyword corresponding to
- 6 a larger number of ad spots that otherwise would be unused
- 7 by other ads is provided before another keyword
- 8 corresponding to a smaller number of ad spots that
- 9 otherwise would be unused by other ads.
- 1 Claim 27 (previously presented): A computer-implemented
- 2 method for generating one or more serving constraints for
- 3 targeting an ad, the computer-implemented method
- 4 comprising:

- 5 a) accepting ad information;
- 6 b) determining a category using the accepted ad
- 7 information;
- 8 c) looking up one or more serving constraints using
- 9 the category determined.
- 1 Claim 28 (previously presented): The computer-implemented
- 2 method of claim 83 wherein at least one of the one or more
- 3 ad targeting keywords is a negative keyword for an ad,
- 4 which negative keyword is used to make the ad ineligible to
- 5 be served for requests including the negative keyword.
- 1 Claim 29 (previously presented): The computer-implemented
- 2 method of claim 27 wherein an ad includes ad creative
- 3 information for rendering the ad and an address of a
- 4 landing Webpage linked from the ad, and
- 5 wherein the act of determining a category uses the ad
- 6 creative information.
- 1 Claim 30 (previously presented): The computer-implemented
- 2 method of claim 27 wherein an ad includes ad creative
- 3 information for rendering the ad and an address of a
- 4 landing Webpage linked from the ad, and
- 5 wherein the act of determining at least one category
- 6 uses information from the landing Webpage.
- 1 Claim 31 (previously presented): The computer-implemented
- 2 method of claim 83 wherein the act of looking up keywords
- 3 uses an index in which each of a plurality of categories is
- 4 provided as a lookup key to one or more keywords.

- 1 Claim 32 (previously presented): The computer-implemented
- 2 method of claim 83 further comprising:
- 3 performing qualification testing of the keywords to
- 4 determine if a keyword is qualified or unqualified for
- 5 use as an ad targeting keyword,
- 6 wherein each of the at least some of the keywords
- 7 provided as one or more ad targeting keywords are qualified
- 8 keywords.
- 1 Claim 33 (previously presented): The computer-implemented
- 2 method of claim 83 wherein the act of performing
- 3 qualification testing of the keyword tracks a performance
- 4 of ads served using the keyword as an ad targeting keyword.
- l Claim 34 (previously presented): The computer-implemented
- 2 method of claim 27 wherein the performance of ads is
- 3 tracked in general, across all categories.
- 1 Claim 35 (previously presented): The computer-implemented
- 2 method of claim 27 wherein the performance of ads is
- 3 tracked across one or more specific categories.
- 1 Claim 36 (previously presented): The computer-implemented
- 2 method of claim 27 wherein the one or more specific
- 3 categories include the category accepted.
- 1 Claim 37 (previously presented): The computer-implemented
- 2 method of claim 33 wherein the ads served using the keyword
- 3 as an ad targeting keyword during the act of performing
- 4 qualification testing of the keywords, are only served on
- 5 available ad spots that otherwise would be unused by any
- 6 ads.

- 1 Claim 38 (previously presented): The computer-implemented
- 2 method of claim 83 wherein the act of providing the
- 3 keywords as candidate targeting keywords provides the
- 4 determined one more keywords in an order determined using
- 5 unused inventory information about available ad spots that
- 6 otherwise would be unused by ads.
- 1 Claim 39 (previously presented): The computer-implemented
- 2 method of claim 83 wherein the act of providing the
- 3 keywords as candidate targeting keywords provides the
- 4 keywords in an order determined using unused inventory
- 5 information such that a keyword corresponding to a larger
- 6 number of ad spots that otherwise would be unused by other
- 7 ads is provided before another keyword corresponding to a
- 8 smaller number of ad spots that otherwise would be unused
- 9 by other ads.
- 1 Claim 40 (previously presented): The computer-implemented
- 2 method of claim 83 further comprising:
- d) populating serving constraints of an ad with the
- 4 candidate keywords.
- 1 Claim 41 (previously presented): The computer-implemented
- 2 method of claim 83 further comprising:
- 3 d) providing the candidate keywords to an advertiser
- 4 as ad targeting keyword suggestions;
- 5 e) accepting advertiser input in response to the
- 6 suggested targeting keywords; and
- 7 f) determining whether or not to provide at least
- 8 some of the candidate keywords as targeting keywords
- 9 for an ad using the accepted advertiser input.

- 1 Claim 42 (previously presented): Apparatus for determining
- 2 one or more ad targeting keywords, the apparatus
- 3 comprising:
- 4 a) an input for accepting a category;
- 5 b) means for looking up one or more keywords using
- 6 the accepted category; and
- 7 c) means for providing at least some of the keywords
- 8 as one or more ad targeting keywords.
- 1 Claim 43 (previously presented): The apparatus of claim 42
- 2 wherein at least one of the one or more ad targeting
- 3 keywords is a negative keyword for an ad, which negative
- 4 keyword is used to make the ad ineligible to be served for
- 5 requests including the negative keyword.

#### Claims 44 and 45 (canceled)

- 1 Claim 46 (previously presented): The apparatus of claim 42
- 2 wherein the means for looking up keywords use an index in
- 3 which each of a plurality of categories is provided as a
- 4 lookup key to one or more keywords.
- 1 Claim 47 (previously presented): The apparatus of claim 42
- 2 further comprising:
- 3 means for performing qualification testing of the
- 4 keyword to determine if a keyword is qualified or
- 5 unqualified for use as an ad targeting keyword,
- 6 wherein each of the at least some of the keywords
- 7 provided as one or more ad targeting keywords are qualified
- 8 keywords.

- l Claim 48 (previously presented): The apparatus of claim 47
- 2 wherein the means for performing qualification testing of
- 3 the keywords track a performance of ads served using the
- 4 keyword as an ad targeting keyword.
- 1 Claim 49 (original): The apparatus of claim 48 wherein the
- 2 performance of ads is tracked in general, across all
- 3 categories.
- 1 Claim 50 (original): The apparatus of claim 48 wherein the
- 2 performance of ads is tracked across one or more specific
- 3 categories.
- 1 Claim 51 (previously presented): The apparatus of claim 50
- 2 wherein the one or more specific categories include the
- 3 category accepted.
- 1 Claim 52 (previously presented): The apparatus of claim 48
- 2 wherein the ads served using the keyword as an ad targeting
- 3 keyword by the means for performing qualification testing
- 4 of the keywords, are only served on available ad spots that
- 5 otherwise would be unused by any ads.
- 1 Claim 53 (previously presented): The apparatus of claim 42
- 2 wherein the means for providing at least some of the
- 3 keywords as one or more ad targeting keywords provide the
- 4 keywords in an order determined using unused inventory
- 5 information about available ad spots that otherwise would
- 6 be unused by any ads.
- l Claim 54 (previously presented): The apparatus of claim 42
- 2 wherein the means for providing at least some of the

- 3 keywords as one or more ad targeting keywords provide the
- 4 keywords in an order determined using unused inventory
- 5 information such that a keyword corresponding to a larger
- 6 number of ad spots that otherwise would be unused by other
- 7 ads is provided before another keyword corresponding to a
- 8 smaller number of ad spots that otherwise would be unused
- 9 by other ads.
- 1 Claim 55 (previously presented): Apparatus for determining
- 2 one or more ad targeting keywords, the apparatus
- 3 comprising:
- 4 a) an input for accepting a category;
- b) means for looking up one or more keywords using
- 6 the accepted category;
- 7 c) means for providing the keywords as suggested
- 8 targeting keywords to an advertiser;
- 9 d) means for accepting advertiser input in response
- 10 to the suggested targeting keywords; and
- ll e) means for determining whether or not to provide at
- 12 least some of the keywords as targeting keywords for
- an ad using the accepted advertiser input.
  - 1 Claim 56 (previously presented): The apparatus of claim 55
  - 2 wherein at least one of the one or more ad targeting
  - 3 keywords is a negative keyword of an ad, which negative
  - 4 keyword is used to make the ad ineligible to be served for
  - 5 requests including the negative keyword.

### Claims 57 and 58 (canceled)

- 1 Claim 59 (previously presented): The apparatus of claim 55
- 2 wherein the means for looking up keywords uses an index in

- 3 which each of a plurality of categories is provided as a
- 4 lookup key to one or more keywords.
- 1 Claim 60 (previously presented): The apparatus of claim 55
- 2 further comprising:
- 3 means for performing qualification testing of the
- 4 keywords to determine if a keyword is qualified or
- 5 unqualified for use as an ad targeting keyword,
- 6 wherein each of the at least some of the keywords
- 7 provided as suggested targeting keywords to an advertiser
- 8 are qualified keywords.
- 1 Claim 61 (previously presented): The apparatus of claim 60
- 2 wherein the means for performing qualification testing of
- 3 the keyword track a performance of ads served using the
- 4 keyword as an ad targeting keyword.
- 1 Claim 62 (original): The apparatus of claim 61 wherein the
- 2 performance of ads is tracked in general, across all
- 3 categories.
- I Claim 63 (previously presented): The apparatus of claim 62
- 2 wherein the one or more specific categories include the
- 3 category accepted.
- Claim 64 (original): The apparatus of claim 61 wherein the
- 2 performance of ads is tracked across one or more specific
- 3 categories.
- 1 Claim 65 (previously presented): The apparatus of claim 61
- 2 wherein the ads served using the keyword as an ad targeting
- 3 keyword by the means for performing qualification testing

- 4 of the keywords, are only served on available ad spots that
- 5 otherwise would be unused by any ads.
- 1 Claim 66 (previously presented): The apparatus of claim 55
- 2 wherein the means for providing the keywords as suggested
- 3 targeting keywords to an advertiser provide the keywords in
- 4 an order determined using unused inventory information
- 5 about available ad spots that would otherwise be unused by
- 6 any ads.
- 1 Claim 67 (previously presented): The apparatus of claim 55
- 2 wherein the means for providing the keywords as suggested
- 3 targeting keywords to an advertiser provide the keywords in
- 4 an order determined using unused inventory information such
- 5 that a keyword corresponding to a larger number of ad spots
- 6 that otherwise would be unused by other ads is provided
- 7 before another keyword corresponding to a smaller number of
- 8 ad spots that otherwise would be unused by other ads.
- Claim 68 (previously presented): Apparatus for generating
- 2 one or more keywords as candidates for use as ad targeting
- 3 keywords, the apparatus comprising:
- 4 a) an input for accepting ad information;
- 5 b) means for determining a category using the
- 6 accepted ad information;
- 7 c) means for looking up one or more keywords from the
- 8 category determined.
- [ Claim 69 (previously presented): The apparatus of claim 68
- 2 wherein at least one of the one or more ad targeting
- 3 keywords is a negative keyword for an ad, which negative

- 4 keyword is used to make the ad ineligible to be served for
- 5 requests including the negative keyword.
- 1 Claim 70 (previously presented): The apparatus of claim 68
- 2 . wherein an ad includes ad creative information for
- 3 rendering the ad and an address of a landing Webpage linked
- 4 from the ad, and
- 5 wherein the means for determining at least one
- 6 category use the ad creative information.
- 1 Claim 71 (previously presented): The apparatus of claim 68
- 2 wherein an ad includes ad creative information for
- 3 rendering the ad and an address of a landing Webpage linked
- 4 from the ad, and
- 5 wherein the means for determining at least one
- 6 category use information from a landing Webpage.
- 1 Claim 72 (previously presented): The apparatus of claim 68
- 2 wherein the means for looking up keywords use an index in
- 3 which each of a plurality of categories is provided as a
- 4 lookup key to keywords.
- 1 Claim 73 (previously presented): The apparatus of claim 68
- 2 further comprising:
- 3 means for performing qualification testing of the
- 4 keywords to determine if a keyword is qualified or
- 5 unqualified for use as an ad targeting keyword,
- 6 wherein each of the at least some of the keywords
- 7 provided as candidate targeting keywords are qualified
- 8 keywords.

- 1 Claim 74 (previously presented): The apparatus of claim 73
- 2 wherein the means for performing qualification testing of
- 3 the keyword tracks a performance of ads served using the
- 4 keyword as an ad targeting keyword.
- l Claim 75 (original): The apparatus of claim 74 wherein the
- 2 performance of ads is tracked in general, across all
- 3 categories.
- 1 Claim 76 (original): The apparatus of claim 74 wherein the
- 2 performance of ads is tracked across one or more specific
- 3 categories.
- l Claim 77 (previously presented): The apparatus of claim 76
- 2 wherein the one or more specific categories include the
- 3 category accepted.
- 1 Claim 78 (previously presented): The apparatus of claim 74
- 2 wherein the ads served using the keyword as an ad targeting
- 3 keyword by the means for performing qualification testing
- 4 of the keywords, are only served on available ad spots that
- 5 otherwise would be unused by any ads.
- 1 Claim 79 (previously presented): The apparatus of claim 68
- 2 wherein the means for providing the keywords as candidate
- 3 targeting keywords provide the determined one more keywords
- 4 in an order determined using unused inventory information
- 5 about available ad spots that would otherwise be unused by
- 6 any ads.
- l Claim 80 (previously presented): The apparatus of claim 68
- 2 wherein the means for providing the keywords as candidate

- 3 targeting keywords provide the keywords in an order
- 4 determined using unused inventory information such that a
- 5 keyword corresponding to a larger number of ad spots that
- 6 otherwise would be unused by other ads is provided before
- 7 another keyword corresponding to a smaller number of ad
- 8 spots that otherwise would be unused by other ads.
- 1 Claim 81 (original): The apparatus of claim 68 further
- 2 comprising:
- 3 d) means for populating serving constraints of an ad
- 4 with the candidate keywords.
- 1 Claim 82 (original): The apparatus of claim 68 further
- 2 comprising:
- d) means for providing the candidate keywords to an
   advertiser as ad targeting keyword suggestions;
- 6 means for accepting advertiser input in response
- 6 to the suggested targeting keywords; and
- f) means for determining whether or not to provide
- 8 at least some of the candidate keywords as targeting
- 9 keywords for an ad using the accepted advertiser
- input.
  - 1 Claim 83 (previously presented): The
- 2 computer-implemented method of claim 27 wherein the one
- 3 or more serving constraints are one or more ad targeting
- 4 keywords.
- Claim 84 (previously presented): A computer-implemented
- 2 method comprising:
- 3 a) accepting ad information;

- b) determining one or more categories using the accepted ad information;
- 6 c) recommending at least one of the one or more 7 categories determined to an advertiser; and
- d) accepting advertiser feedback with respect to the recommended one or more categories,
- wherein each of the one or more categories is specifically associated with one or more keywords.

## Claim 85 (canceled)

- 1 Claim 86 (previously presented): The computer-implemented
- 2 method of claim 1 wherein the category is specifically
- 3 associated with the keywords and this specific association
- 4 is used to lookup the keywords.
- I Claim 87 (previously presented): The computer-implemented
- 2 method of claim 14 wherein the category is specifically
- 3 associated with the keywords and this specific association
- 4 is used to lookup the keywords.
- 1 Claim 88 (previously presented): The computer-implemented
- 2 method of claim 27 wherein the category is specifically
- 3 associated with the keywords and this specific association
- 4 is used to lookup the keywords

# EVIDENCE APPENDIX PURSUANT TO 37 C.F.R. § 41.37 (c) (1) (ix)

There is no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132, nor is there any other evidence entered by the Examiner and relied upon by the appellant in the appeal.

# RELATED PROCEEDINGS APPENDIX PURSUANT TO 37 C.F.R. § 41.37 (c) (1) (x)

There are no decisions rendered by a court of the Board in any proceeding identified in section II of the Substitute Supplemental Appeal Brief pursuant to 37 C.F.R. § 41.37 (c) (1) (ii).